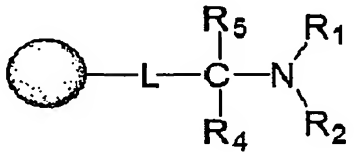
CLAIMS

1. Process for generating a metal complexed agent, comprising contacting (I) a solid phase bound organic conjugate represented by the formula



(I)

wherein:

the sphere is the solid phase;

C is a methylene group that may be substituted by one or two groups R4 and R5, which can be in particular aliphatic or aromatic substituents, or RO, RS or R_2N, wherein R is an aliphatic or arylic group,

L is a linker that may or may not be present, that is coupled to the solid support and has activating properties towards nucleophilic attack to the C group and is preferably a phenyl, alkyl, allyl or aryl; and

R1 and R2 are the same or different and are a metal coordinating group or a non-coordinating organic group,

which solid phase bound organic conjugate is optionally derivatized at one or both of R1 and R2 with a biologically active molecule,

with (II) $[M(H_2O)_3(CO)_3]^{n+}$,

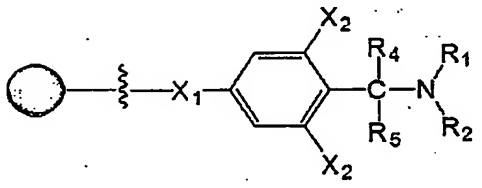
wherein M is selected from the group consisting of technetium (Tc), rhenium (Re), rhodium (Rh), platinum (Pt), iridium (Ir)

and copper (Cu) and n is 1,2 or 3 depending on the metal; under suitable conditions to cause the formation of a coordinate bond between $[M(H_2O)_3(CO)_3]^{n+}$ and the tertiary amine nitrogen atom of the solid phase bound organic conjugate and thereby the release of the metal complexed agent thus formed from the support.

2. Process according to claim 1, wherein the linker is selected from the group consisting of phenyl, vinyl, aryl, and other non-aliphatic and aliphatic groups.

3. Process according to claim 2, wherein the phenyl, vinyl, aryl or other non-aliphatic and aliphatic groups are substituted with an electron withdrawing group selected from OR, R, NR_2, wherein R is an aliphatic or arylic group.

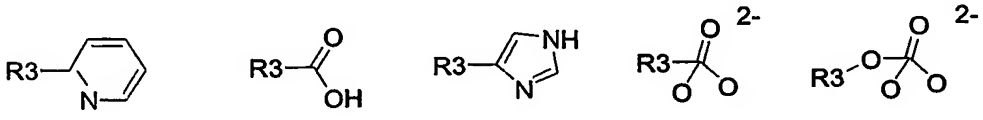
4. Process according to claims 2, wherein the linker is as shown in formula II:

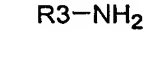


(II)

wherein X1 is C or O and X2 an electron withdrawing substituents and preferably a $-OCH_3$ group.

5. Process according to claim 1, wherein R1 and/or R2 are selected from the group consisting of





6. Process according to claim 1, wherein R1 and R2 are an aliphatic or aromatic substituent, such as $-CH_3$, C_2H_5 or $CH_2C_6H_5$.

7. Process according to claim 1, wherein M is selected from the group consisting of Tc, Re, Ru, Rh, Ir, Cu and Pt.

8. Process as claimed in claim 7, wherein the metal is selected from the group consisting of ^{99m}Tc, ^{186}Re and ^{188}Re.

9. Process according to claim 1, wherein the biomolecule is selected from the group consisting of amino acids; steroids; peptides; proteins, in particular structural proteins, enzymes or antibodies; carbohydrates; polysaccharides and oligosaccharides; nucleosides, nucleotides, oligonucleotides and polynucleotides; lipids, peptides and pharmaceutically active small molecules such as central nervous system receptor binding compounds.

10. Process according to claim 1, wherein the solid phase support is a polyethylene glycol resin, or a hybrid of polyethylene glycol and polystyrene, e.g. a polystyrene resin with polyethylene glycol spacers with a benzyl alcohol anchoring group.

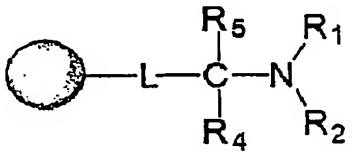
11. Process according to claim 1, further comprising the step of collecting the metal complexed agent for further use.

12. Process according to claim 1, wherein the process is performed at a pH that is in the range of about 6.0-11.0, preferably in the range of about 7.5-9.5.

13. Process according to claim 1, wherein the process is performed at a temperature in the range of about 40-100°C, preferably in the range of about 70-82°C.

14. Process according to claim 11, which further comprises bringing the collected metal labeled conjugate into a pharmaceutically acceptable form.

15. A solid phase bound organic conjugate represented by the formula



(I)

wherein L, C, R1, R2, R4 and R5 are as defined in claim 1.

16. A solid phase bound organic molecule according to claim 15, characterized in that the biologically active molecule is selected from the group consisting of amino acids; steroids; peptides; proteins, in particular structural proteins, enzymes or antibodies; carbohydrates; polysaccharides and oligosaccharides; nucleosides, nucleotides, oligonucleotides and polynucleotides; lipids, peptides and pharmaceutically active small molecules such as central nervous system receptor binding compounds.

17. A solid phase bound organic molecule according to claim 15, wherein the solid phase support is a polyethylene glycol resin, or a hybrid of polyethylene glycol and polystyrene, e.g. a polystyrene resin with polyethylene glycol spacers with a benzyl alcohol anchoring group.

18. A solid phase bound organic molecule according to claim 15 as depicted in Table 1.

19. A metal complexed organic molecule obtainable by

the process according to claim 1.

20. A kit for the preparation of a diagnostic or therapeutic pharmaceutical composition, comprising a container with the molecule of formula (I), in which the reaction with a solution of $[M(H_2O)_3(CO)_3]^{n+}$ can take place.

21. Kit as claimed in claim 20, wherein the container is a vessel or column.

22. Kit as claimed in claim 20, further comprising a solution of $[M(H_2O)_3(CO)_3]^{n+}$.

23. Kit as claimed in claim 20, further comprising the reagents for the preparation of the metal carbonyl $[M(H_2O)_3(CO)_3]^{n+}$.

24. Kit as claimed in claim 20, further comprising a facility for filtration.